CLAIMS

1. 1.   A load balancing system for distributing tasks to processor resources of a proces-
2. sor pool, the system comprising:
3.   a memory organized into at least one region of blocks, each block configured to
4. store a session;
5.   an interface for coupling the memory to the processor resource, whereby the
6. processor resource accesses the memory blocks to update information associated with the
7. sessions;
8.   an access monitor coupled to the interface, wherein the access monitor recognizes
9. and tracks memory cycles associated with the memory blocks during a specified period
10. of time and collects statistics associated with the sessions; and
11.   a central resource coupled to the access monitor, the central resource arranged to
12. receive the statistics from the access monitor, and, in response thereto, to assign tasks to
13. the processor resources.

1. 2. The load balancing system as defined in claim 1 further comprising logic for recogniz-
2. ing a new session and designating a memory block for that session.

1. 3. The load balancing system as defined in claim 1 wherein the access monitor com-
2. prises:
3.   memory address logic that recognizes address fields defining the memory blocks;
4.   memory control logic that recognizes memory cycles being executed on the
5. memory blocks; and
6.   a session table with activity information entries associated with each session.

1. 4. The load balancing system as defined in claim 1 wherein the access monitor is embod-
2. ied as an application specific integrated circuit.

1 5. The load balancing system as defined in claim 3 wherein, when the specified period of

2 time elapses, the session table is cleared.

1 6. A load balancing system for distributing tasks to processor resources of a processor

2 pool, the system comprising:

3 means for storing information organized into at least one region of blocks, each

4 memory block configured to store a session;

5 means for coupling the blocks to the processor resources, whereby the processor

6 resources access the memory blocks to update information associated with the sessions;

7 means for monitoring information transfers on the interface, wherein the means

8 for monitoring recognizes and tracks memory cycles associated with the memory blocks

9 during a specified period of time and collects statistics associated with the sessions; and

10 means for assigning tasks coupled to the means for monitoring to receive the sta-

11 tistics therefrom, and in response thereto, to assign tasks to the processor resources.

1 7. The load balancing system as defined in claim 6 further comprising means for recog-

2 nizing a new session and designating a memory block for that session.

1 8. The load balancing system as defined in claim 6 wherein the means for monitoring in-

2 formation further comprises:

3 means for recognizing memory address fields defining the memory blocks;

4 means for recognizing memory cycles being executed on the memory blocks; and

5 means for storing activity information entries associated with each session.

1 9. The load balancing system as defined in claim 8 wherein, when the specified period of

2 time elapses, the session table is cleared.

1 10.   A load balancing method for distributing tasks to processor resources of a proces-

2 sor pool, the method comprising the steps of:

3   storing information into memory organized into at least one region of blocks, each

4   block configured to store a session;

5   coupling the memory to the processor resource, whereby the processor resource

6   accesses the memory blocks to update information associated with the sessions;

7   monitoring information transfers between the memory blocks and the processor

8   resources, wherein the step of monitoring further comprises recognizing and tracking

9   memory cycles associated with the memory blocks during a specified period of time and

10   collecting statistics associated with the session; and

11   receiving the statistics, and, in response thereto, assigning tasks to the processor

12   resources.

1   11. The load balancing method as defined in claim 10 further comprising the steps of

2   recognizing a new session and designating a memory block for that session.

1   12. The load balancing method as defined in claim 10 wherein the step of monitoring in-

2   formation transfers comprises the steps of:

3   recognizing memory address fields defining the memory blocks;

4   recognizing memory cycles being executed on the memory blocks; and

5   storing activity information entries associated with each session in a session table.

1   13. The load balancing method as defined in claim 10 wherein, when the time period has

2   elapsed, the session table is cleared.

1   14. Computer readable memory comprising computer executable program instructions for

2   load balancing distribution of tasks to processor resources of a processor pool, the in-

3   structions, when executed, causes:

4   storing information into memory organized into at least one region of blocks, each

5   block configured to store a session,

6   coupling the memory to the processor resource, whereby the processor resource

7   accesses the memory blocks to update information associated with the sessions,

8   monitoring information transfers between the memory blocks and the processor

9   resource, wherein the monitoring recognizes and tracks memory associated with the

10   memory blocks during a specified period of time and collects statistics associated with

11   the sessions; and

12   receiving the statistics, and, in response thereto, assigning tasks to the processor

13   resources.

1   15. Computer readable memory as defined in claim 14, the computer program when exe-

2   cuted also causes recognizing of a new session and designating a memory block for that

3   session.

1   16. Computer readable memory as defined in claim 14, the computer program when exe-

2   cuted also causes:

3   recognizing memory address fields defining the memory blocks;

4   recognizing memory cycles being executed on the memory blocks; and

5   storing activity information entries associated with each session in a session table.

1   17. Computer readable memory as defined in claim 14, the computer program when exe-

2   cuted also causes, when the time period has elapsed, the session table to be cleared.